

PAT-NO: JP358214281A

DOCUMENT-IDENTIFIER: JP 58214281 A

TITLE: NONAQUEOUS ELECTROLYTE FOR LITHIUM SECONDARY
BATTERY

PUBN-DATE: December 13, 1983

INVENTOR-INFORMATION:

NAME
TOBISHIMA, SHINICHI
YAMAJI, AKIHIKO

ASSIGNEE-INFORMATION:

NAME	COUNTRY	
NIPPON TELEGR & TELEPH CORP <NTT>		N/A

APPL-NO: JP57096921

APPL-DATE: June 8, 1982

INT-CL (IPC): H01M010/40

US-CL-CURRENT: 429/337

ABSTRACT:

PURPOSE: To provide a nonaqueous electrolyte for a lithium secondary battery
in which charge-discharge performance of a lithium electrode is good by using a
nitrobenzene derivative as an additive of an nonaqueous electrolyte.

CONSTITUTION: In a nonaqueous electrolyte prepared by dissolving a lithium salt in an organic solvent, a nitrobenzene derivative is used as an additive of the electrolyte. By adding the derivative, charge-discharge performance of a lithium electrode is increased. Although the reason is not always clear, it

presumes that when an aromatic nitrocompound is added, a Li<SP>+</SP> ion conductive film is formed on the lithium surface and this film effectively acts in charge-discharge performance of a Li electrode. As effective nitrocompounds, 2,4,7-trinitro-9-fluorenone, nitramine, or 5-nitrobenzotriazole is used. 10<SP>-1</SP>mol/l or less of a nitrobenzene is preferably added. Addition of more than 10<SP>-1</SP>mol/l decreases charge-discharge performance of the Li electrode.

COPYRIGHT: (C)1983,JPO&Japio